

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1923	"ionic liquid"	US-PGPUB; USPAT	OR	ON	2007/11/07 09:07
L2	243	L1 and (starch or polysaccharide)	US-PGPUB; USPAT	OR	ON	2007/11/07 09:07
L3	207	L2 and (acylation or esterification or ester or esterify or acylate or acetate or acetylation)	US-PGPUB; USPAT	OR	ON	2007/11/07 10:30
L4	14	starch same "ionic liquid"	US-PGPUB; USPAT	OR	ON	2007/11/07 10:30
L7	5	("1943176" "2461139" "20030157351" "20040038031" "3022289").PN.	US-PGPUB; USPAT	OR	ON	2007/11/07 13:53
L8	0	"20030157351".pn.	USPAT	OR	ON	2007/11/07 13:53
L9	0	"20040038031".pn.	USPAT	OR	ON	2007/11/07 13:53
S15	3	("1943176" "2461139" "20030157351" "20040038031" "3022289").PN.	USPAT	OR	ON	2007/11/07 13:53
S16	3	((VESA) near2 (MYLLYMAKI)).INV.	US-PGPUB; USPAT	OR	ON	2007/11/07 13:51
S17	13	((REIJO) near2 (AKSELA)).INV.	US-PGPUB; USPAT	OR	ON	2007/11/07 08:41
S18	1923	"ionic liquid"	US-PGPUB; USPAT	OR	ON	2007/11/07 08:41
S19	158	S18 and starch	US-PGPUB; USPAT	OR	ON	2007/11/07 08:41
S20	243	S18 and (starch or polysaccharide)	US-PGPUB; USPAT	OR	ON	2007/11/07 09:06
S21	156	S18 and microwave	US-PGPUB; USPAT	OR	ON	2007/11/07 08:41
S22	532	S18 and (microwave or radiation or irradiat\$4)	US-PGPUB; USPAT	OR	ON	2007/11/07 08:42
S23	108	S20 and (microwave or radiation or irradiat\$4)	US-PGPUB; USPAT	OR	ON	2007/11/07 08:43

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTALDB1623

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JUL 02	LMEDLINE coverage updated
NEWS	3	JUL 02	SCISEARCH enhanced with complete author names
NEWS	4	JUL 02	CHEMCATS accession numbers revised
NEWS	5	JUL 02	CA/CAPLUS enhanced with utility model patents from China
NEWS	6	JUL 16	CAPLUS enhanced with French and German abstracts
NEWS	7	JUL 18	CA/CAPLUS patent coverage enhanced
NEWS	8	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS	9	JUL 30	USGENE now available on STN
NEWS	10	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS	11	AUG 06	FSTA enhanced with new thesaurus edition
NEWS	12	AUG 13	CA/CAPLUS enhanced with additional kind codes for granted patents
NEWS	13	AUG 20	CA/CAPLUS enhanced with CAS indexing in pre-1907 records
NEWS	14	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS	15	AUG 27	USPATOLD now available on STN
NEWS	16	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS	17	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS	18	SEP 13	FORIS renamed to SOFIS
NEWS	19	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS	20	SEP 17	CA/CAPLUS enhanced with printed CA page images from 1967-1998
NEWS	21	SEP 17	CAPLUS coverage extended to include traditional medicine patents
NEWS	22	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	23	OCT 02	CA/CAPLUS enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS	24	OCT 19	BEILSTEIN updated with new compounds
NEWS EXPRESS	19	SEPTEMBER 2007:	CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS LOGIN			Welcome Banner and News Items
NEWS IPC8			For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation

of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 08:46:29 ON 07 NOV 2007

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CAPLUS' ENTERED AT 08:46:34 ON 07 NOV 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 7 Nov 2007 VOL 147 ISS 20

FILE LAST UPDATED: 6 Nov 2007 (20071106/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> "ionic liquid" and (starch or polysaccharide)

284271 "IONIC"

511 "IONICS"

284535 "IONIC"

("IONIC" OR "IONICS")

798287 "LIQUID"

138315 "LIQUIDS"

901714 "LIQUID"

("LIQUID" OR "LIQUIDS")

1101866 "LIQ"

104546 "LIQS"

1141857 "LIQ"

("LIQ" OR "LIQS")

1583946 "LIQUID"

("LIQUID" OR "LIQ")

10942 "IONIC LIQUID"

("IONIC" (W) "LIQUID")

170623 STARCH

9565 STARCHES

171630 STARCH

(STARCH OR STARCHES)

62985 POLYSACCHARIDE

79609 POLYSACCHARIDES

100157 POLYSACCHARIDE

(POLYSACCHARIDE OR POLYSACCHARIDES)

L1 49 "IONIC LIQUID" AND (STARCH OR POLYSACCHARIDE)

=> l1 and (microwave or radiation or irradiat?)

123303 MICROWAVE
10744 MICROWAVES
125133 MICROWAVE
(MICROWAVE OR MICROWAVES)
754792 RADIATION
13344 RADIATIONS
760280 RADIATION
(RADIATION OR RADIATIONS)
317834 IRRADIAT?
334516 IRRADN
3230 IRRADNS
335572 IRRADN
(IRRADN OR IRRADNS)
511616 IRRADIAT?
(IRRADIAT? OR IRRADN)

L2 2 L1 AND (MICROWAVE OR RADIATION OR IRRADIAT?)

=> d l2 1-2 ibib abs

L2 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:754555 CAPLUS
DOCUMENT NUMBER: 145:194651
TITLE: Method for complete enzymatic hydrolysis of straw
cellulose pretreated with steam and microwave
INVENTOR(S): Chen, Hongzhang; Liu, Liying
PATENT ASSIGNEE(S): Institute of Process Engineering, Chinese Academy of
Sciences, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
CN 1806945	A	20060726	CN 2005-10011217	20050120

PRIORITY APPLN. INFO.: CN 2005-10011217 20050120

AB The title method comprises: (1) steam-blasting straws with water content of 10-35% under steam pressure of 1.0-1.5 MPa for 2-7 min, (2) washing with water of 50-100°C, drying, mixing with ionic liquid at a solid-liquid ratio of 1 : (5-50), and heating directly or by microwave under stirring for 5-60 min, (3) washing the treated straw with water, and (4) hydrolyzing with cellulase at below 50°C and pH 4.8 for 48-72 h. The aforementioned ionic liquid contains cations selected from N,N-dimethylimidazole ion, 1-ethyl-3-methylimidazole ion, 1-allyl-3-methylimidazole ion, 1-butyl-3-methylimidazole ion and 1-methyl-3-butylimidazole ion, and anions selected from chloride ion, bromide ion, acetate ion and thiocyanate ion. The method can be used to obtain enzymic hydrolysis rate of cellulose up to 100%.

L2 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:239036 CAPLUS
DOCUMENT NUMBER: 142:299721
TITLE: Esterification of starch under
microwave irradiation and pressure
INVENTOR(S): Myllymaeki, Vesa; Aksela, Reijo
PATENT ASSIGNEE(S): Kemira Oyj, Finland
SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005023873	A1	20050317	WO 2004-FI523	20040910
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FI 2003001301	A	20050312	FI 2003-1301	20030911
FI 116142	B1	20050930		
CA 2533553	A1	20050317	CA 2004-2533553	20040910
EP 1664125	A1	20060607	EP 2004-767037	20040910
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
BR 2004013432	A	20061010	BR 2004-13432	20040910
US 2007073051	A1	20070329	US 2006-566975	20061207
PRIORITY APPLN. INFO.:			FI 2003-1301	A 20030911
			WO 2004-FI523	W 20040910

OTHER SOURCE(S): MARPAT 142:299721

AB An organic starch ester is prepared by mixing a starch material, such as natural starch or hydrolyzed starch, with an ionic liquid solvent to dissolve the starch, and then treating the dissolved starch with an organic esterifying agent, such as C1-11 carboxylic acid, to form an organic starch ester, and subsequently separating the organic starch ester from the solution by adding a non-solvent, such as alcs., ketones, and acetonitrile, to the starch ester solution Microwave irradiation and/or pressure can be applied to assist the dissoln. and esterification. Thus, native barely starch was dissolved in ionic 1-butyl-3-methylimidazolium chloride and reacted with acetic anhydride, followed by quenching with ethanol to receive starch acetate.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d scan 11

L1 49 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN
CC 63-7 (Pharmaceuticals)
TI Ionic liquid-derived blood-compatible composite membranes for kidney dialysis
ST heparin cellulose composite hemodialysis membrane blood coagulation
IT Dialyzers
(hemodialyzers, membranes; ionic liquid-derived blood-compatible composite membranes for kidney dialysis)
IT Anticoagulants
Biocompatibility
Blood coagulation
Composites

Dissolution

Human

Ionic liquids

Pore size

Surface structure

(ionic liquid-derived blood-compatible composite
membranes for kidney dialysis)

IT Albumins, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(serum, bovine; ionic liquid-derived blood-compatible
composite membranes for kidney dialysis)

IT 9005-49-6, Heparin, biological studies

RL: DEV (Device component use); PAC (Pharmacological activity); PRP
(Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ionic liquid-derived blood-compatible composite
membranes for kidney dialysis)

IT 9004-34-6, Cellulose, biological studies

RL: DEV (Device component use); PRP (Properties); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(ionic liquid-derived blood-compatible composite
membranes for kidney dialysis)

IT 57-13-6, Urea, processes

RL: REM (Removal or disposal); PROC (Process)
(ionic liquid-derived blood-compatible composite
membranes for kidney dialysis)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L1 49 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN

CC 44 (Industrial Carbohydrates)

TI Homogeneous synthesis of high-amylose starch acetates and their
ultrafine fibers prepared by electrospinning

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> d his

(FILE 'HOME' ENTERED AT 08:46:29 ON 07 NOV 2007)

FILE 'CAPLUS' ENTERED AT 08:46:34 ON 07 NOV 2007

L1 49 "IONIC LIQUID" AND (STARCH OR POLYSACCHARIDE)

L2 2 L1 AND (MICROWAVE OR RADIATION OR IRRADIAT?)

=> s l1 and (ester or acylate or acylation or esterification or acetate or
acetylation)

610234 ESTER

448055 ESTERS

846422 ESTER

(ESTER OR ESTERS)

2019 ACYLATE

1048 ACYLATES

2718 ACYLATE

(ACYLATE OR ACYLATES)

60686 ACYLATION

893 ACYLATIONS

60946 ACYLATION

(ACYLATION OR ACYLATIONS)

101882 ESTERIFICATION

578 ESTERIFICATIONS

102030 ESTERIFICATION

(ESTERIFICATION OR ESTERIFICATIONS)

548815 ACETATE

29215 ACETATES
560809 ACETATE
(ACETATE OR ACETATES)

71060 ACETYLATION
273 ACETYLATIONS
71133 ACETYLATION
(ACETYLATION OR ACETYLATIONS)

L3 17 L1 AND (ESTER OR ACYLATE OR ACYLATION OR ESTERIFICATION OR ACETA
TE OR ACETYLATION)

=> d l3 1-17 ibib abs

L3 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:1032844 CAPLUS

TITLE: Homogeneous synthesis of high-amylose starch
acetates and their ultrafine fibers prepared
by electrospinning

AUTHOR(S): Zhou, Qiaoping; Wu, Jin; Zhang, Jun; He, Jiasong; Sun,
Zhijie; Zhang, Zuoguang

CORPORATE SOURCE: School of Material Science and Engineering, BeiHang
University, Beijing, 100083, Peop. Rep. China

SOURCE: Gaofenzi Xuebao (2007), (7), 685-688

CODEN: GAXUE9; ISSN: 1000-3304

PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB High-amylose starch can dissolve effectively in a room temperature
ionic liquid 1-allyl-3-methylimidazolium chloride
(amimCl). By using amimCl as the reaction medium, high-amylose
starch acetates with a relatively wide range of degree
of substitution (DS) were homogeneously synthesized by a one-step method
in the absence of any catalyst. The effects of reaction time and acetic
anhydride/anhydroglucose unit (AGU) molar ratio on the DS of
starch acetates were investigated. These starch
acetates exhibited different solubility in water, acetone and DMAc,
depending on the DS value. Finally, the fibrous membranes composing of
continuous and smooth fibers with diams. in a range from several tens to
several hundreds nanometers were successfully produced via electrospinning
of starch acetate solution

L3 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:1028657 CAPLUS

DOCUMENT NUMBER: 147:324796

TITLE: Preparation of degraded cellulose in ionic
liquid

INVENTOR(S): Massonne, Klemens; D'Andola, Giovanni; Stegmann, Veit;
Mormann, Werner; Wezstein, Markus; Leng, Wei; Freyer,
Stephan

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 49pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007101812	A1	20070913	WO 2007-EP51872	20070228
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN,			

KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK,
 MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
 RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
 TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM

DE 102006011076 A1 20070913 DE 2006-102006011076 20060308
 PRIORITY APPLN. INFO.: DE 2006-102006011076A 20060308
 DE 2006-102006042891A 20060909

AB Degraded cellulose is prepared by dissolving cellulose in an ionic liquid and treating it at elevated temps., optionally in the presence of water. Thus, dried cellulose 0.5 g was dissolved in 1-ethyl-3-methylimidazolium hydrogensulfate 20.0 g at 120°, then reacted with water by adding 0.05 g water into the solution for 16 h at 100° to give degraded cellulose showing no precipitation was formed when the resultant mixture was poured into 20 times water or methanol.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:755417 CAPLUS

DOCUMENT NUMBER: 147:145097

TITLE: Molten ionic liquids-based solvent system, its production and use for producing regenerated carbohydrates

INVENTOR(S): Stegmann, Veit; Massonne, Klemens; Maase, Matthias; Uerdingen, Eric; Lutz, Michael; Hermanutz, Frank; Gaeher, Frank

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 74pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007076979	A1	20070712	WO 2006-EP12478	20061222
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

DE 102005062608 A1 20070705 DE 2005-102005062608 20051223
 PRIORITY APPLN. INFO.: DE 2005-102005062608A 20051223
 DE 2006-102006035830A 20060801

AB The title composition comprising 1 - 10 weight% water or protic solvents and 1 - 35 weight% carbohydrates can be used for regenerating cellulose, starch and other carbohydrates, in particular in the form of regenerated cellulose fibers. Thus, mixing 5 min at 50° 800 g

1-ethyl-3-methylimidazolium acetate and 100 g water, adding 100 g cellulose and tempering 45 min at 90° gave a solution, which can be used after filtering via 15 µm filter for manufacture fibers.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE. FORMAT

L3 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:730492 CAPLUS
DOCUMENT NUMBER: 147:120013
TITLE: Based on melted ionic liquids
solvent compositions for regenerating carbohydrates,
especially cellulose
INVENTOR(S): Stegmann, Veit; Massonne, Klemens; Maase, Matthias;
Uerdingen, Eric; Lutz, Michael; Hermanutz, Frank;
Gaehr, Frank
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Ger. Offen., 25 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 102005062608	A1	20070705	DE 2005-102005062608	20051223
WO 2007076979	A1	20070712	WO 2006-EP12478	20061222
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: DE 2005-102005062608A 20051223
DE 2006-102006035830A 20060801

AB The title composition comprising ≥5 weight% water or protic solvents and 1 - 35 weight% carbohydrates can be used for regenerating cellulose, starch and other carbohydrates. Thus, mixing 5 min at 50° 800 g 1-ethyl-3-methylimidazolium acetate and 100 g water, adding 100 g cellulose and tempering 45 min at 90° gave a solution, which can be used after filtering via 15 µm filter for manufacture fibers.

L3 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:458864 CAPLUS
DOCUMENT NUMBER: 146:458065
TITLE: The application using non-covalent bond between a cucurbituril derivative and a ligand
INVENTOR(S): Kim, Kimoon; Baek, Kangkyun; Kim, Jeeyoun; Hwang, Ilha; Ko, Young-Ho; Selvapalam, Narayanan; Nagarajan, Erumaipatty R.; Park, Kyeng-Min
PATENT ASSIGNEE(S): Postech Academy-Industry Foundation, S. Korea
SOURCE: PCT Int. Appl., 67pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007046575	A1	20070426	WO 2006-KR687	20060228
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
KR 2007050747	A	20070516	KR 2006-18434	20060224
US 2007092867	A1	20070426	US 2006-407143	20060420
PRIORITY APPLN. INFO.:				
			KR 2005-99379	A 20051020
			KR 2005-108312	A 20051112
			KR 2006-891	A 20060104
			KR 2006-18434	A 20060224
AB Provided is a kit including a first component that is a compound A bound to a first material and a second component that is a ligand bound to a second material, wherein each of the first and second materials is independently selected from the group consisting of a solid phase, a biomol., an antioxidant, a chemical therapeutic agent, an antihistaminic agent, a cucurbituril dendrimer, a cyclodextrin derivative, a crown ether derivative, a calixarene derivative, a cyclophane derivative, a cyclic peptide derivative, a metallic ion, a chromophore, a fluorescent material, a phosphor, a radioactive material, and a catalyst; and the ligand can non-covalently bind to the compound A; a method of separating and purifying a material bound to a ligand using the compound A bound to a solid phase; a method of separating and purifying the compound A or a material bound to the compound using a ligand bound to a solid phase; a sensor chip including a compound A bound to a first material and a ligand bound to a second material; and a solid-catalyst complex including the compound A bound to a first material and a ligand bound to a second material.				
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L3 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1309561 CAPLUS
DOCUMENT NUMBER: 146:68220
TITLE: Cosmetic compositions comprising ionic liquids
INVENTOR(S): Hoeffkes, Horst; Brockmann, Claudia
PATENT ASSIGNEE(S): Henkel K.-G.a.A., Germany
SOURCE: PCT Int. Appl., 370pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006131234	A1	20061214	WO 2006-EP5098	20060527
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

DE 102005026355 A1 20061214 DE 2005-102005026355 20050607

PRIORITY APPLN. INFO.: DE 2005-102005026355A 20050607

AB Disclosed are cosmetic compns. comprising novel feed materials which develop advantageous effects in individual, preferably all product categories. The inventive cosmetic compns. are used for treating skin and/or the scalp and/or hair and/or for oral and dental hygiene while containing at least one ionic liquid in an adequate cosmetic carrier. Thus an O/W skin cream contained (weight/weight%): thistle oil 3.00; Myritol 318 5.00; behenyl alc. 1.00; Cutina MD 2.00; Cetearyl alc. 1.00; iso-Pr stearate 4.00; shea butter 2.00; dimethicone 1.00; hydrogenated palm glyceride citrate 0.05; propylparaben 0.20; Dow Corning 1403 Fluid 1.00; aluminum starch octenyl succinate 1.00; titania 0.50; hexanediol 6.00; propylene glycol 5.00; glycerol 5.00; methylparaben 0.20; sodium carbomer 0.20; algae extract 1.00; caomint 1.00; calmosensine 1.00; Symdiol68 0.30; DSH-CN 5.00; Tego IL T16ES 8.00;.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1189401 CAPLUS

DOCUMENT NUMBER: 147:237041

TITLE: Ionic liquids as solvents for biopolymers: acylation of starch and zein protein

AUTHOR(S): Biswas, Atanu; Shogren, R. L.; Stevenson, D. G.; Willett, J. L.; Bhowmik, Pradip K.

CORPORATE SOURCE: Plant Polymer Research Unit, National Center for Agricultural Utilization Research, USDA/Agricultural Research Services, Peoria, IL, 61604, USA

SOURCE: Carbohydrate Polymers (2006), 66(4), 546:550
CODEN: CAPOD8; ISSN: 0144-8617

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Biopolymers such as starch and zein protein were found to be soluble at 80° in ionic liqs. such as 1-butyl-3-methylimidazolium chloride (BMIMCl) and 1-butyl-3-methylimidazolium dicyanamide (BMIMdca) in concns. up to 10% (weight/weight). Higher concns. of biopolymers in these novel solvents resulted in solns. with too high viscosity to stir. Solns. of both starch and zein in BMIMCl were acylated with anhydrides in presence of pyridine to give acetyl starch and benzoyl zein with various degrees of substitution. Without pyridine the acylation reaction did not proceed. 1H NMR and IR spectroscopies were used to determine the degree of substitution of starch. Viscosity studies indicated that the starch underwent slight reduction in mol. weight during the course of acylation. Starch was also soluble in other non-conventional solvents such as choline chloride/oxalic acid and choline chloride/ZnCl2. However, zein was insol. in these solvents.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:754555 CAPLUS
DOCUMENT NUMBER: 145:194651
TITLE: Method for complete enzymatic hydrolysis of straw
cellulose pretreated with steam and microwave
INVENTOR(S): Chen, Hongzhang; Liu, Liying
PATENT ASSIGNEE(S): Institute of Process Engineering, Chinese Academy of
Sciences, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
CN 1806945	A	20060726	CN 2005-10011217	20050120
PRIORITY APPLN. INFO.:			CN 2005-10011217	20050120

AB The title method comprises: (1) steam-blasting straws with water content of 10-35% under steam pressure of 1.0-1.5 MPa for 2-7 min, (2) washing with water of 50-100°C, drying, mixing with ionic liquid at a solid-liquid ratio of 1 : (5-50), and heating directly or by microwave under stirring for 5-60 min, (3) washing the treated straw with water, and (4) hydrolyzing with cellulase at below 50°C and pH 4.8 for 48-72 h. The aforementioned ionic liquid contains cations selected from N,N-dimethylimidazole ion, 1-ethyl-3-methylimidazole ion, 1-allyl-3-methylimidazole ion, 1-butyl-3-methylimidazole ion and 1-methyl-3-butylimidazole ion, and anions selected from chloride ion, bromide ion, acetate ion and thiocyanate ion. The method can be used to obtain enzymic hydrolysis rate of cellulose up to 100%.

L3 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:511114 CAPLUS
DOCUMENT NUMBER: 145:27988
TITLE: Nonhalogen ionic liquids as
solvents for poorly-soluble polysaccharides
and compositions containing the solvents and the
polysaccharides
INVENTOR(S): Ono, Hiroyuki; Fukaya, Yukinobu
PATENT ASSIGNEE(S): Tokyo University of Agriculture & Technology, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 2006137677	A	20060601	JP 2004-326165	20041110
PRIORITY APPLN. INFO.:			JP 2004-326165	20041110

AB Highly-polar nonhalogen ionic liqs., preferably having Kamlet-Taft β -parameter (hydrogen bond-accepting ability) ≥ 0.9 , are useful for dissolving poorly-soluble polysaccharides, e.g. cellulose, chitin, chitosan, etc. The comps. are useful for chemical modification, functionalization, and film and fiber fabrication of the polysaccharides. Thus, N-methylimidazole was treated with BuBr at 0° for 3 days to give butylmethylimidazolium bromide, which was converted into formate ($\beta = 1.02$) via hydroxide. 10 Mg cellulose

filter paper (cellulose) was completely dissolved in butylmethylimidazolium hydroxide at 65°.

L3 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:742134 CAPLUS
TITLE: Ionic liquids as solvents for biopolymers: Acylation of starch and zein protein
AUTHOR(S): Biswas, Atanu; Shogren, R. L.; Stevenson, David G.; Willett, J. L.; Bhowmik, Pradip K.
CORPORATE SOURCE: Plant Polymer Research Unit, National Center for Agricultural Utilization Research, USDA/ARS, Peoria, IL, 61604, USA
SOURCE: Abstracts of Papers, 230th ACS National Meeting, Washington, DC, United States, Aug. 28-Sept. 1, 2005 (2005), POLY-192. American Chemical Society: Washington, D. C.
CODEN: 69HFCL
DOCUMENT TYPE: Conference; Meeting Abstract; (computer optical disk)
LANGUAGE: English
AB We have found that biopolymers, such as starch and zein, are soluble in ionic liquid 1-butyl-3-methylimidazolium chloride up to 15% (weight/weight) concentration at 80 -aC. The starch solution reacted with acetic anhydride and pyridine to give acetylated starch with DS of 0.3 to 2.6 in good yields. Similarly, zein solution reacted with benzoyl anhydride and pyridine to give benzoate ester. In this work, we have demonstrated for the first time that IL could be used as a solvent for the chemical modifications of starch and zein.

L3 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:727707 CAPLUS
DOCUMENT NUMBER: 144:275924
TITLE: Ionic liquids as solvents for biopolymers: Acylation of starch and zein protein
AUTHOR(S): Biswas, Atanu; Shogren, R. L.; Stevenson, D. G.; Willett, J. L.; Bhowmik, Pradip K.
CORPORATE SOURCE: Plant Polymer Research Unit, National Center for Agricultural Utilization Research, USDA/Agricultural Research Services, Peoria, IL, 61604, USA
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2005), 46(2), 924-925
CODEN: ACPPAY; ISSN: 0032-3934
PUBLISHER: American Chemical Society, Division of Polymer Chemistry
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB In this study biopolymers such as starch and zein are found to be soluble in ionic liquid 1-butyl-3-methylimidazolium chloride up to 15% concentration at 80°. The starch solution reacted with acetic anhydride and pyridine to give acetylated starch with DS of 0.3 to 2.6 in good yields. Similarly, zein solution reacted with benzoyl anhydride and pyridine to give benzoate ester.
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:546880 CAPLUS
DOCUMENT NUMBER: 143:83457

TITLE: compositions facilitating translocation of therapeutic effector across biol. barrier comprising hydrophobic agent, counter ion, penetrating peptide, and/or protease inhibitor

INVENTOR(S): Ben-Sasson, Shmuel A.; Cohen, Einat

PATENT ASSIGNEE(S): Israel

SOURCE: U.S. Pat. Appl. Publ., 59 pp., Cont.-in-part of U.S. Ser. No. 665,184.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005136103	A1	20050623	US 2004-942300	20040916
US 2004146549	A1	20040729	US 2003-665184	20030917
US 7115707	B2	20061003		
US 2005058702	A1	20050317	US 2003-664989	20030917
PRIORITY APPLN. INFO.:			US 2003-503615P	P 20030917
			US 2003-664989	A2 20030917
			US 2003-665184	A2 20030917
			US 2002-355396P	P 20020207
			WO 2003-IB968	A2 20030207

OTHER SOURCE(S): MARPAT 143:83457

AB This invention relates to novel pharmaceutical compns. capable of facilitating penetration of at least one effector across biol. barriers. The compns. may comprise therapeutic effectors, hydrophobic agents, counter ions, protein stabilizers, penetrating peptides, surface active agents, and protease inhibitors. Disclosed are methods for producing the compns. of the invention, and their uses. The invention also relates to methods of treating or preventing diseases by administering these compns. to affected subjects, and methods of vaccination.

L3 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:239036 CAPLUS

DOCUMENT NUMBER: 142:299721

TITLE: Esterification of starch under microwave irradiation and pressure

INVENTOR(S): Myllymaeki, Vesa; Aksela, Reijo

PATENT ASSIGNEE(S): Kemira Oyj, Finland

SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005023873	A1	20050317	WO 2004-FI523	20040910
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,			

SN, TD, TG

FI 2003001301	A	20050312	FI 2003-1301	20030911
FI 116142	B1	20050930		
CA 2533553	A1	20050317	CA 2004-2533553	20040910
EP 1664125	A1	20060607	EP 2004-767037	20040910
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
BR 2004013432	A	20061010	BR 2004-13432	20040910
US 2007073051	A1	20070329	US 2006-566975	20061207
PRIORITY APPLN. INFO.:			FI 2003-1301	A 20030911
			WO 2004-FI523	W 20040910

OTHER SOURCE(S): MARPAT 142:299721

AB An organic starch ester is prepared by mixing a starch material, such as natural starch or hydrolyzed starch, with an ionic liquid solvent to dissolve the starch, and then treating the dissolved starch with an organic esterifying agent, such as C1-11 carboxylic acid, to form an organic starch ester, and subsequently separating the organic starch ester from the solution by adding a non-solvent, such as alcs., ketones, and acetonitrile, to the starch ester solution. Microwave irradiation and/or pressure can be applied to assist the dissoln. and esterification. Thus, native barely starch was dissolved in ionic 1-butyl-3-methylimidazolium chloride and reacted with acetic anhydride, followed by quenching with ethanol to receive starch acetate.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:238432 CAPLUS

DOCUMENT NUMBER: 142:303641

TITLE: Compositions capable of facilitating penetration across a biological barrier

INVENTOR(S): Ben-Sasson, Shmuel A.; Cohen, Einat

PATENT ASSIGNEE(S): Israel

SOURCE: U.S. Pat. Appl. Publ., 12 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 2005058702	A1	20050317	US 2003-664989	20030917
US 2005136103	A1	20050623	US 2004-942300	20040916
AU 2004317954	A1	20051013	AU 2004-317954	20040917
CA 2539043	A1	20051013	CA 2004-2539043	20040917
WO 2005094785	A2	20051013	WO 2004-IB4452	20040917
WO 2005094785	A3	20060323		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1670500	A2	20060621	EP 2004-821561	20040917

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
 JP 2007523050 T 20070816 JP 2006-526736 20040917
 US 2007172517 A1 20070726 US 2006-572249 20061213
 PRIORITY APPLN. INFO.: US 2003-503615P P 20030917
 US 2003-664989 A2 20030917
 US 2003-665184 A2 20030917
 WO 2004-IB4452 W 20040917

AB This invention relates to novel pharmaceutical compns. for delivery of biol. active mols., such as polypeptides, drugs and other therapeutic agents, across various biol. barriers mixing one or more effectors (anionic impermeable mols.) with a counter ion to the effector (a liquid forming cation). The invention also relates to methods of treating or preventing diseases by administering pharmaceutical compns. to affected subjects. For example, an ionic liquid forming cation was used to enable the translocation of insulin across an epithelial barrier. A composition containing recombinant human insulin and an ionic liquid forming cation, e.g., 1-butyl-3-methylimidazolium chloride, together with phytic acid, Pluronic F68, aprotinin, Solutol HS-15, and N-acetylcysteine was administered rectally or by injection into an intestinal loop of a test animal, e.g., a mouse. Blood glucose levels decrease in relation to the amount of insulin absorbed from the intestine into the bloodstream (i.e., in an amount that correlates to the amount of insulin absorbed). Thus, this drug delivery system can replace the need for insulin injections, thereby providing an efficient, safe and convenient route of administration for diabetes patients.

L3 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2004:1127733 CAPLUS
 DOCUMENT NUMBER: 143:347356
 TITLE: Room-temperature ionic liquids
 that dissolve carbohydrates in high concentrations
 AUTHOR(S): Liu, Qingbin; Janssen, Michiel H. A.; van Rantwijk,
 Fred; Sheldon, Roger A.
 CORPORATE SOURCE: Laboratory of Biocatalysis and Organic Chemistry,
 Delft University of Technology, Delft, 2628 BL, Neth.
 SOURCE: Green Chemistry (2005), 7(1), 39-42
 CODEN: GRCHFJ; ISSN: 1463-9262
 PUBLISHER: Royal Society of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 143:347356

AB Carbohydrates are only sparingly soluble in common organic solvents as well as in weakly coordinating ionic liqs. Ionic liqs. that contain the dicyanamide anion, in contrast, dissolve approx. 200 g L-1 of glucose, sucrose, lactose and cyclodextrin. Candida antarctica lipase B mediated the esterification of sucrose with dodecanoic acid in ionic liquid (no esterification data).

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:820197 CAPLUS
 DOCUMENT NUMBER: 139:312468
 TITLE: Liquid compositions for slow-release soft capsules
 INVENTOR(S): Paris, Laurence
 PATENT ASSIGNEE(S): Fr.
 SOURCE: Fr. Demande, 38 pp.
 CODEN: FRXXBL
 DOCUMENT TYPE: Patent
 LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2838349	A1	20031017	FR 2002-4697	20020415
FR 2838349	B1	20040625		
WO 2003086368	A1	20031023	WO 2003-FR1195	20030415
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003262129	A1	20031027	AU 2003-262129	20030415
EP 1499304	A1	20050126	EP 2003-740610	20030415
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005531531	T	20051020	JP 2003-583389	20030415
US 2005244489	A1	20051103	US 2005-511260	20050620
PRIORITY APPLN. INFO.:			FR 2002-4697	A 20020415
			WO 2003-FR1195	W 20030415

AB The invention relates to liquid compns. intended for formation of prolonged-release capsules. The prolonged release of the drug is achieved by in situ formation of a matrix, which being compact and biodegradable, is obtained by instantaneous phys. modification of the contents of the capsule in contact with the gastric juices. Thus, slow-release soft capsules contained dimenhydrinate 50.0000g, Transcutol P 425.0000, Sepiegel-305 400.0000 and sucrose acetate isobutyrate 25.0000 g.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:25859 CAPLUS

DOCUMENT NUMBER: 136:85811

TITLE: Preparation of N-alkoxyalkylimidazolium salts and ionic liquid or gel containing them

INVENTOR(S): Kimizuka, Nobuo; Nakashima, Takuya

PATENT ASSIGNEE(S): Foundation for Scientific Technology Promotion, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

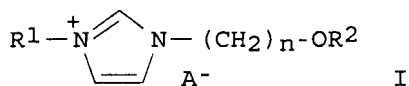
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002003478	A	20020109	JP 2000-184298	20000620
PRIORITY APPLN. INFO.:			JP 2000-184298	20000620
OTHER SOURCE(S):			MARPAT 136:85811	

GI



AB The title compds. (I; n = 1-6' R1 = H, C1-4 alkyl; R2 = C1-12 alkyl; A = anion) are prepared Also described are an ionic liquid consisting of an imidazolium salt derived from the N-alkoxyalkylimidazolium cation of I and a counter anion and an ionic gel obtained by dissolving synthetic polymer, protein, polysaccharide, carbohydrate derivative, or mol. aggregate in the ionic liquid These imidazolium salts provides ionic lig at room temperature without ion exchange and possess high solubilization power against many synthetic polymers, biopolymers, or mol. aggregates. The ionic liquid is used for solid electrolyte materials, electrochem. materials, and biocatalytic materials and useful as a soluble support or reaction solvent, extraction solvent for synthetic reaction, or organic electrolyte, or for development of functional gel furnished with biomol. functions such as specific mol. recognition and catalysis (no data). It can solubilize above substances hitherto incompatible with existing ionic liquid and has low viscosity which is a desirable characteristic as reaction medium for easy dispersion of reactants. When used as reaction medium, it is used for enzymic modification of biochem. substances such as proteins or sugars or modification of biopolymers such as proteins, sugars, or polysaccharides using water-unstable modifying agents such as acid halides or acid anhydrides. Thereby, it provides method for rapid, simple, and inexpensive chemical modification of sugars or polysaccharides since it solubilizes them without using protecting groups. Thus, 17.9 g 2-bromoethyl Me ether was slowly added dropwise to 10.6 g 1-methylimidazole and heated to 60° with stirring to give a brown viscous solution which was successively washed with acetone and Et acetate followed by completely distilling out these solvent under reduced pressure. The obtained liquid was purified by a column of alumina to give 61% N-methyl-N'-methoxyethylimidazolium bromide (II) which was a liquid at room temperature and had d. of 1.39 g/cm³ and viscosity of 162 cP. II solubilized urea, pentaerythritol, β -D-glucose, α -cyclodextrin, agarose, and glucose oxidase.

=> d his

(FILE 'HOME' ENTERED AT 08:46:29 ON 07 NOV 2007)

FILE 'CAPLUS' ENTERED AT 08:46:34 ON 07 NOV 2007

L1 49 "IONIC LIQUID" AND (STARCH OR POLYSACCHARIDE)
L2 2 L1 AND (MICROWAVE OR RADIATION OR IRRADIAT?)
L3 17 S L1 AND (ESTER OR ACYLATE OR ACYLATION OR ESTERIFICATION OR AC

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS

SINCE FILE
ENTRY

TOTAL
SESSION

FULL ESTIMATED COST	82.25	82.46
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-14.82	-14.82

STN INTERNATIONAL LOGOFF AT 08:49:18 ON 07 NOV 2007

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTALDB1623

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JUL 02	LMEDLINE coverage updated
NEWS	3	JUL 02	SCISEARCH enhanced with complete author names
NEWS	4	JUL 02	CHEMCATS accession numbers revised
NEWS	5	JUL 02	CA/CAPLUS enhanced with utility model patents from China
NEWS	6	JUL 16	CAPLUS enhanced with French and German abstracts
NEWS	7	JUL 18	CA/CAPLUS patent coverage enhanced
NEWS	8	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS	9	JUL 30	USGENE now available on STN
NEWS	10	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS	11	AUG 06	FSTA enhanced with new thesaurus edition
NEWS	12	AUG 13	CA/CAPLUS enhanced with additional kind codes for granted patents
NEWS	13	AUG 20	CA/CAPLUS enhanced with CAS indexing in pre-1907 records
NEWS	14	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS	15	AUG 27	USPATOLD now available on STN
NEWS	16	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS	17	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS	18	SEP 13	FORIS renamed to SOFIS
NEWS	19	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS	20	SEP 17	CA/CAPLUS enhanced with printed CA page images from 1967-1998
NEWS	21	SEP 17	CAPLUS coverage extended to include traditional medicine patents
NEWS	22	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	23	OCT 02	CA/CAPLUS enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS	24	OCT 19	BEILSTEIN updated with new compounds
NEWS EXPRESS	19	SEPTEMBER 2007:	CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS LOGIN			Welcome Banner and News Items
NEWS IPC8			For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation

of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 08:43:47 ON 07 NOV 2007

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 08:43:56 ON 07 NOV 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 7 Nov 2007 VOL 147 ISS 20

FILE LAST UPDATED: 6 Nov 2007 (20071106/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> e myllymaki v/au

E1	1	MYLLYMAKI SARI A/AU
E2	1	MYLLYMAKI TUIJA/AU
E3	0 -->	MYLLYMAKI V/AU
E4	1	MYLLYMAKI V T/AU
E5	2	MYLLYMAKI VESA/AU
E6	3	MYLLYMAKI VESA T/AU
E7	1	MYLLYNEN K/AU
E8	1	MYLLYNEN KARI/AU
E9	1	MYLLYNEN LIISA/AU
E10	2	MYLLYNEN M/AU
E11	6	MYLLYNEN P/AU
E12	3	MYLLYNEN PAEIVI/AU

=> s e4 or e5 or e6

	1	"MYLLYMAKI V T"/AU
	2	"MYLLYMAKI VESA"/AU
	3	"MYLLYMAKI VESA T"/AU
L1	6	"MYLLYMAKI V T"/AU OR "MYLLYMAKI VESA"/AU OR "MYLLYMAKI VESA T"/AU

=> e aksela r/au

E1	28	AKSELA HELENA/AU
E2	5	AKSELA MAIJA/AU
E3	6 -->	AKSELA R/AU
E4	1	AKSELA RAIMO/AU

E5	1	AKSELA RALMO/AU
E6	1	AKSELA REIGO/AU
E7	46	AKSELA REIJO/AU
E8	200	AKSELA S/AU
E9	1	AKSELA S S/AU
E10	32	AKSELA SEPPO/AU
E11	1	AKSELA TAPIO/AU
E12	2	AKSELBAND BORIS/AU

=> s e3-e7

	6	"AKSELA R"/AU
	1	"AKSELA RAIMO"/AU
	1	"AKSELA RALMO"/AU
	1	"AKSELA REIGO"/AU
	46	"AKSELA REIJO"/AU
L2	55	("AKSELA R"/AU OR "AKSELA RAIMO"/AU OR "AKSELA RALMO"/AU OR "AKSELA REIGO"/AU OR "AKSELA REIJO"/AU)

=> s l1 or l2

L3	61	L1 OR L2
----	----	----------

=> dup remove l3

PROCESSING COMPLETED FOR L3

L4	61	DUP REMOVE L3 (0 DUPLICATES REMOVED)
----	----	--------------------------------------

=> s l4 and ("ionic liquid" or starch)

L5	61	S L4
	284271	"IONIC"
	511	"IONICS"
	284535	"IONIC"
		("IONIC" OR "IONICS")
	798287	"LIQUID"
	138315	"LIQUIDS"
	901714	"LIQUID"
		("LIQUID" OR "LIQUIDS")
	1101866	"LIQ"
	104546	"LIQS"
	1141857	"LIQ"
		("LIQ" OR "LIQS")
	1583946	"LIQUID"
		("LIQUID" OR "LIQ")
	10942	"IONIC LIQUID"
		("IONIC" (W) "LIQUID")
	170623	STARCH
	9565	STARCHES
	171630	STARCH
		(STARCH OR STARCHES)
L6	6	L5 AND ("IONIC LIQUID" OR STARCH)

=> d l6 1-6 ibib abs

L6	ANSWER 1 OF 6	CAPLUS	COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:	2007:54651	CAPLUS	
DOCUMENT NUMBER:	146:144557		
TITLE:	Production of <u>starch</u> ethers in <u>ionic liquids</u> in the absence of water		
INVENTOR(S):	Myllymaeki, Vesa; <u>Aksela</u> , <u>Reijo</u>		
PATENT ASSIGNEE(S):	Kemira Oyj, Finland		
SOURCE:	PCT Int. Appl., 20pp.		
	CODEN: PIXXD2		
DOCUMENT TYPE:	Patent		
LANGUAGE:	English		

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007006848	A1	20070118	WO 2006-FI248	20060712
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: FI 2005-752 A 20050714
OTHER SOURCE(S): MARPAT 146:144557

AB Starch ethers are prepared by mixing starch with an ionic liquid solvent to dissolve the starch, and then treating the dissolved starch with an etherifying agent in the presence of a base to form a starch ether, and subsequently separating the starch ether from the solution, wherein both the dissoln. and the etherification are carried out in the substantial absence of water.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:977559 CAPLUS
DOCUMENT NUMBER: 145:337750
TITLE: Water-insoluble polysaccharide-based composite materials for use in paper and board manufacturing
INVENTOR(S): Myllymaeki, Vesa; Aksela, Reijo; Sundquist, Anna; Karvinen, Salla Marjatta
PATENT ASSIGNEE(S): Kemira Oyj, Finland
SOURCE: PCT Int. Appl., 70pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006097571	A1	20060921	WO 2006-FI88	20060315
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

FI 2005000293 A 20060919 FI 2005-293 20050318
PRIORITY APPLN. INFO.: FI 2005-293 A 20050318

OTHER SOURCE(S): MARPAT 145:337750

AB The invention relates to a composite material based on water-insol. polysaccharide, such as cellulose and chitin. The composite material comprises particles of at least one light scattering material, the surface of which is essentially covered with at least one water-insol. polysaccharide. The invention also relates to a method for preparation of the composite material, and to a paper and board manufacturing process in which the composite material is used as a filler or pigment. Both highly organic products with exceptional heat capacities, as well as cheap high filler products can be manufactured. The composite material significantly improves retention of light scattering fillers in the manufacture of paper and board even without the use of sep. retention aids.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:638995 CAPLUS

DOCUMENT NUMBER: 143:135160

TITLE: Starch depolymerization in ionic liquid solvents

INVENTOR(S): Myllymaeki, Vesa; Aksela, Reijo

PATENT ASSIGNEE(S): Kemira Oyj, Finland

SOURCE: PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005066374	A1	20050721	WO 2005-FI4	20050104
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
FI 2004000005	A	20050706	FI 2004-5	20040105
FI 116141	B1	20050930		
CA 2551390	A1	20050721	CA 2005-2551390	20050104
EP 1704259	A1	20060927	EP 2005-701720	20050104
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS			
PRIORITY APPLN. INFO.:			FI 2004-5	A 20040105
			WO 2005-FI4	W 20050104

OTHER SOURCE(S): MARPAT 143:135160

AB Starch dissolved in an ionic liquid can be depolymd. without acid or base catalyst or enzyme. Starch is selectively depolymd. by mixing with an ionic liquid solvent to dissolve the starch, and then treating the dissolved starch by agitating at elevated temperature and for a period for time to effect depolymn. of the starch into desired depolymn. products. For example, all the starch was depolymd. into monomeric products by stirring a mixture of 150 mg of oven-dried native barley starch with 3 mL 1-butyl-3-methylimidazolium chloride solvent for 30 min at 85° and 2h at 150°. Stirring a similar mixture for

30 min at 85° and 2h at 100° gave a product mixture containing monomeric products of depolymd. amylose but amylopectin remained intact (GPC).

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:523500 CAPLUS
DOCUMENT NUMBER: 143:28326
TITLE: Etherification of cellulose in ionic liquid solutions
INVENTOR(S): Myllymaeki, Vesa; Aksela, Reijo
PATENT ASSIGNEE(S): Kemira Oyj, Finland
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005054298	A1	20050616	WO 2004-FI730	20041202
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
FI 2003001763	A	20050604	FI 2003-1763	20031203
FI 116140	B1	20050930		
CA 2548007	A1	20050616	CA 2004-2548007	20041202
EP 1689788	A1	20060816	EP 2004-801227	20041202
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS			
US 2007112185	A1	20070517	US 2007-581491	20070116
PRIORITY APPLN. INFO.:			FI 2003-1763	A 20031203
			WO 2004-FI730	W 20041202

OTHER SOURCE(S): MARPAT 143:28326

AB Cellulose is mixed and dissolved in an ionic liquid solvent and the solution is treated with an etherifying agent in the presence of inorg. base to form a cellulose ether, which is subsequently separated from the solution. The dissoln. and the etherification are carried out in the absence of organic base and in the substantial absence of H₂O. Microwave irradiation and/or pressure can be applied to assist in dissoln. and etherification. Thus, 50 mg cellulose was dissolved in 5 g 1-butyl-3-methylimidazolium chloride (m. 60°) with the aid of microwaves to give 1% solution. ClCH₂CO₂H (2.05 equiv) was added to the solution followed by 3.25 equiv of solid NaOH, the reaction mixture was heated for 2 h at 100° under microwave radiation and the resulting CM-cellulose was precipitated with MeOH, washed with MeOH and 80% aqueous MeOH, and dried.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:239036 CAPLUS

DOCUMENT NUMBER: 142:299721
 TITLE: Esterification of starch under microwave irradiation and pressure
 INVENTOR(S): Myllymaeki, Vesa; Aksela, Reijo
 PATENT ASSIGNEE(S): Kemira Oyj, Finland
 SOURCE: PCT Int. Appl., 25 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005023873	A1	20050317	WO 2004-FI523	20040910
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FI 2003001301	A	20050312	FI 2003-1301	20030911
FI 116142	B1	20050930		
CA 2533553	A1	20050317	CA 2004-2533553	20040910
EP 1664125	A1	20060607	EP 2004-767037	20040910
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
BR 2004013432	A	20061010	BR 2004-13432	20040910
US 2007073051	A1	20070329	US 2006-566975	20061207
PRIORITY APPLN. INFO.:			FI 2003-1301	A 20030911
			WO 2004-FI523	W 20040910

OTHER SOURCE(S): MARPAT 142:299721

AB An organic starch ester is prepared by mixing a starch material, such as natural starch or hydrolyzed starch, with an ionic liquid solvent to dissolve the starch, and then treating the dissolved starch with an organic esterifying agent, such as C1-11 carboxylic acid, to form an organic starch ester, and subsequently separating the organic starch ester from the solution by adding a non-solvent, such as alcs., ketones, and acetonitrile, to the starch ester solution. Microwave irradiation and/or pressure can be applied to assist the dissoln. and esterification. Thus, native barely starch was dissolved in ionic 1-butyl-3-methylimidazolium chloride and reacted with acetic anhydride, followed by quenching with ethanol to receive starch acetate.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:158715 CAPLUS

DOCUMENT NUMBER: 142:242565

TITLE: Dissolution and delignification of lignocellulosic materials with ionic liquid solvent under microwave irradiation

INVENTOR(S): Myllymaeki, Vesa; Aksela, Reijo

PATENT ASSIGNEE(S): Kemira Oyj, Finland

SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005017001	A1	20050224	WO 2004-FI476	20040813
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW,			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
FI 2003001156	A	20050216	FI 2003-1156	20030815
FI 115835	B1	20050729		
CA 2532989	A1	20050224	CA 2004-2532989	20040813
EP 1654307	A1	20060510	EP 2004-742219	20040813
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
BR 2004013435	A	20061010	BR 2004-13435	20040813
PRIORITY APPLN. INFO.:			FI 2003-1156	A 20030815
			WO 2004-FI476	W 20040813

OTHER SOURCE(S): MARPAT 142:242565

AB Wood, straw, and other natural lignocellulosic materials can be dissolved in an ionic liquid solvent under microwave irradiation and/or under pressure, and cellulose and other organic compds., such as lignin and extractives, can also be separated from the solution by precipitating with non-solvent, such as water, alcs., ketones, and ethers, of cellulose. Thus, plywood sawdust was dissolved in 1-butyl-3-methyl-imidazolium chloride under microwave irradiation

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	40.50	40.71
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-4.68	-4.68

STN INTERNATIONAL LOGOFF AT 08:45:26 ON 07 NOV 2007